AMENDMENTS TO THE CLAIMS

Please cancel Claims 17-21.

Please amend Claim 22.

Please add Claims 29-38.

1-21. (Cancelled).

22. (Currently Amended) A reactor for the floating, rotational treatment of semiconductor wafers, comprising a top part and a bottom part between which a chamber for accommodating a wafer is delimited, said top part and said bottom part being provided with gas-introduction holes for discharging gas into said chamber, wherein said gas-introduction holes are oriented essentially perpendicular to a surface of the top part and a surface of the bottom part, and that a pattern of grooves is arranged in the surface of ~~at least one of~~ said top part**[[s]]**, said pattern of grooves being designed to impart to gas entering into said chamber from said gas-introduction holes a flow component which is tangential to a periphery of a wafer held within said chamber.

23. (Previously Presented) The reactor of Claim 22, wherein said pattern of grooves comprises a pattern of spiral shaped grooves, wherein an origin of said spiral lies in proximity of a desired center of the wafer, and wherein an end of said spiral lies in proximity of a desired periphery of the wafer.

24. (Currently Amended) The reactor of Claim 23, wherein in ~~at least one of~~ the top part**[[s]]** ~~having grooves in its surface~~ the gas-introduction holes are arranged along a spiral line, wherein **[[the]]**an origin of said spiral line lies in proximity of the desired center of the wafer, and wherein **[[the]]**an end of said spiral line lies in proximity of the desired periphery of the wafer.

25. (Previously Presented) The reactor of Claim 23, wherein said gas-introduction holes are arranged next to said spiral shaped grooves.

26. (Previously Presented) The reactor of Claims 23, wherein said spiral shaped grooves are designed so as to widen in a direction of a flow of gas.

27. (Previously Presented) The reactor of Claim 22, wherein said pattern of grooves comprises circle segments, and wherein each of said circle segments is provided with at least one gas-introduction hole arranged in proximity of one end of said circle segments.

28. (Previously Presented) The reactor of Claim 27, wherein each of said circle segments, which is provided with at least one gas-introduction hole arranged in proximity of one end of said circle segments, has at least one gas-discharge hole arranged in proximity of an opposing end of said circle segments.

29. (New) The reactor of Claim 23, wherein a plurality of said gas-introduction holes are arranged to form at least one spiral line, wherein an origin of said spiral line lies in proximity of said desired center of said wafer, and wherein an end of said spiral lies in proximity of said periphery of said wafer.

30. (New) The reactor of Claim 22, wherein said gas-introduction holes are configured to provide a gas flow to floatingly support said wafer, wherein said gas flow to floatingly support said wafer is substantially independent of a flow of gas having a flow component which causes rotation of said wafer.

31. (New) The reactor of Claim 30, wherein said gas-introduction holes are configured to provide gas flow to floatingly support said wafer at a substantially constant vertical height relative to said top and said bottom parts while a rotational speed of said wafer is varied.

32. (New) A reactor for semiconductor treatment, comprising:

a top part and a bottom part between which a chamber for accommodating a wafer is delimited, said top part and said bottom part each having a plurality of gas-introduction holes allowing gas discharge into said chamber, wherein said gas-introduction holes are oriented essentially perpendicular to a surface of said top part and a surface of said bottom part; and

a groove pattern arranged in said surface of at least one of said parts, wherein said groove pattern comprises a segment of a circle, wherein a center of said circle is proximate a desired location for a center of said wafer, wherein said groove pattern is configured to impart to gas entering into said chamber from said gas-introduction holes a flow component which is at an angle to a radial of a wafer held within said chamber and wherein said segment has one gas-introduction hole proximate one end of said segment for discharging gas into said chamber to cause clockwise wafer rotation and another gas-introduction hole proximate another end of said segment for discharging gas into said chamber to cause counterclockwise wafer rotation,

wherein said gas-introduction holes are configured to floatingly support said wafer by discharging gas at said wafer, upon retention of said wafer in said chamber.

33. (New) The reactor of Claim 32, wherein said groove pattern comprises a plurality of segments of a circle, each of said plurality of segments lying on the same circle.

34. (New) The reactor of Claim 33, wherein said groove pattern comprises only segments of a circle.

35. (New) The reactor of Claim 34, wherein said segments of a circle are located only on said surface of said top part.

36. (New) The reactor of Claim 32, wherein said one gas-introduction hole is configured to flow gas into said chamber when said another gas-introduction hole flows gas out of said chamber to cause clockwise wafer rotation, and wherein said one gas-introduction hole is configured to flow gas out of said chamber when said another gas-introduction hole flows gas into said chamber to cause counterclockwise wafer rotation.

37. (New) The reactor of Claim 32, wherein said gas-introduction holes are configured to provide a gas flow to floatingly support said wafer, wherein said gas flow to floatingly support said wafer is substantially independent of a flow of gas having a flow component which causes rotation of said wafer.

38. (New) The reactor of Claim 37, wherein said gas-introduction holes are configured to provide gas flow to floatingly support said wafer at a substantially constant vertical height relative to said top and said bottom parts while a rotational speed of said wafer is varied.